

# Work Order ID 71625

Thursday, July 07, 2011 11:40:35 AM



# PRELIMINARY ISSUE

Page 1

Item ID: D4406-043  
Revision ID: PRELIM  
Item Name: Aft Wearplate Assembly

Accept



Setup Start



Stop



Start Date: 7/7/2011 Start Qty: 1.00

Required Date: 7/14/2011 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: *W*  
QC: *W*

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D4406

PA3

100



Waterjet

FLOW CNC Waterjet

364.050

Memo

1-Cut as per dwg D4406

prog rev: *PA3*

dwg rev: *PA3*

2-Deburr if required

SCRAP

0.00

0.00

B11-7-7

①

110



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

B11-7-7

# Work Order ID 71625

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Page 2

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Accept

Setup Start

Stop

Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00

Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan:  
QC:

Date:  
Date:

Tooling:  
SPC (Y/N):

Date:  
Date:

Run Start  
Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120  
QC  
Quality Control

QC8- Inspect parts - second check

0.00 - inspected to PA3

0.00 Dug only

8/11/10

Memo

130  
Small Fab  
Small Fab

QC8- Inspect parts - second check  
Memo  
Form as per dwg D4406

0.00

0.00

SB 11/07/10

140  
QC  
Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

TEST FIT BEFORE WELDING  
PER ATTACHED EMAIL

Flat Pattern Incorrect  
Scrap Part  
11.07.22

# Work Order ID 71625

Thursday, July 07, 2011 11:40:35 AM



Page 3

Item ID: D4406-043  
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Item Name: Aft Wearplate Assembly

Accept



Setup Start



Stop



Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: Date:  
QC: Date:

Tooling: Date:  
SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		0.00							
Large Fab	Memo	0.00							
Large Fab	weld wearplate as per dwg D4406								
160	QC10- Inspect visual per QSI004- ground welds	0.00							
QC	Memo	0.00							
Quality Control									
170		0.00							
Small Fab	Memo	0.00							
Small Fab	Apply coating as per dwg D4406								

# Work Order ID 71625

Thursday, July 07, 2011 11:40:35 AM



Page 4

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Setup Start



Stop



Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan:  
QC:

Date:  
Date:

Tooling:  
SPC (Y/N):

Date:  
Date:

Run Start  
Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							
	QC	0.00							
	Quality Control								
190	Identify as per dwg & Stock Location: _____	0.00							
	Packaging	0.00							
	Packaging								
200	QC21- Final Inspection - Work Order Release	0.00							
	QC	0.00							
	Quality Control								

PD 2385

POSITIVE RECALL

EFFECTIVE 11.07.07 AUTH

RELEASED DATE

11.07.25

# Picklist Print

Thursday, July 07, 2011 11:40:33 AM

Work Order ID: 71625

Parent Item: D4406-043

Parent Item Name: Aft Wearplate Assembly



Start Date: 7/7/2011

Required Date: 7/14/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev A 11.06.06new issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4407-3		Manufactured	No			150	Each	2.0000	1	1			
Bar													

Location	Loc Qty	Loc Code
ENG	2	
70409	2	

M304S18GA		Purchased	No			100	sf	96.8850	3.21	3.378947			
304/316 .050 Sheet													

Location	Loc Qty	Loc Code
MAT020	96.885	
113062	13.655	
116979	69	
117653	14.23	

1811-7-7

①

117653

DART AEROSPACE LTD		Work Order: 71625
Description: AFT WEARPLATE ASSEMBLY		Part Number: D4406-043
Inspection Dwg: D4406-3, Rev: PA3		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

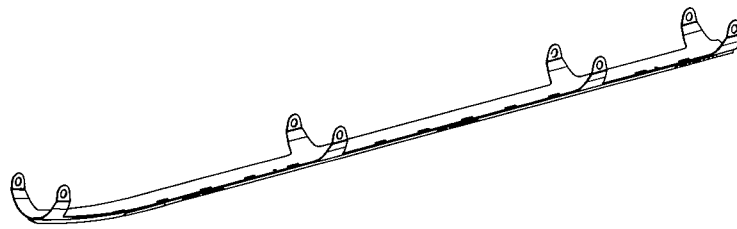
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
φ .188	+ .005 - .001	.192	x		V B02	
.561	± .010	.563	2		V	
.30	± .030	.310	2		V	
.88	± .030	.88	2		V	
.13	± .030	.131	x		V	
.31	± .030	.31	2		V	
1.76	± .030	1.76	2		V	
7.78	± .030	7.785	2		V	
7.214	± .010	7.211	x		V	
3.63	± .030	3.632	2		V	
7.00	± .030	7.00	2		V	
4.10	± .030	4.101	x		V	
2.43	± .030	2.436	2		V	
24.945	± .010	24.945	2		T B01	
27.50	± .030	27.50	2		T	
58.12	± .030	58.12	2		T	
47.685	± .010	47.695	2		T	
54.160	± .010	54.160	2		T	
7.144	± .010	7.143	2		V	
7.567	± .010	7.566	x		V	
8.17	± .030	8.164	2		V	
.050	± .010	.047	2		V	

Measured by: RB
Date: 11-7-7

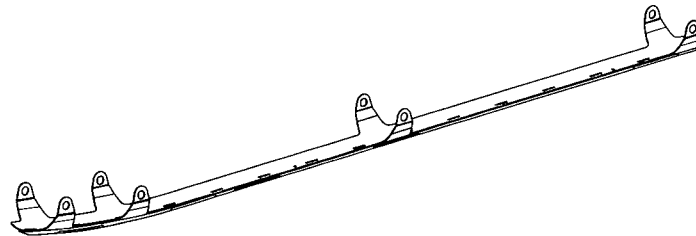
Audited by: S
Date: 11/07/06

Prototype Approval:
Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



**D4406-041 FWD WEARPLATE ASSY**



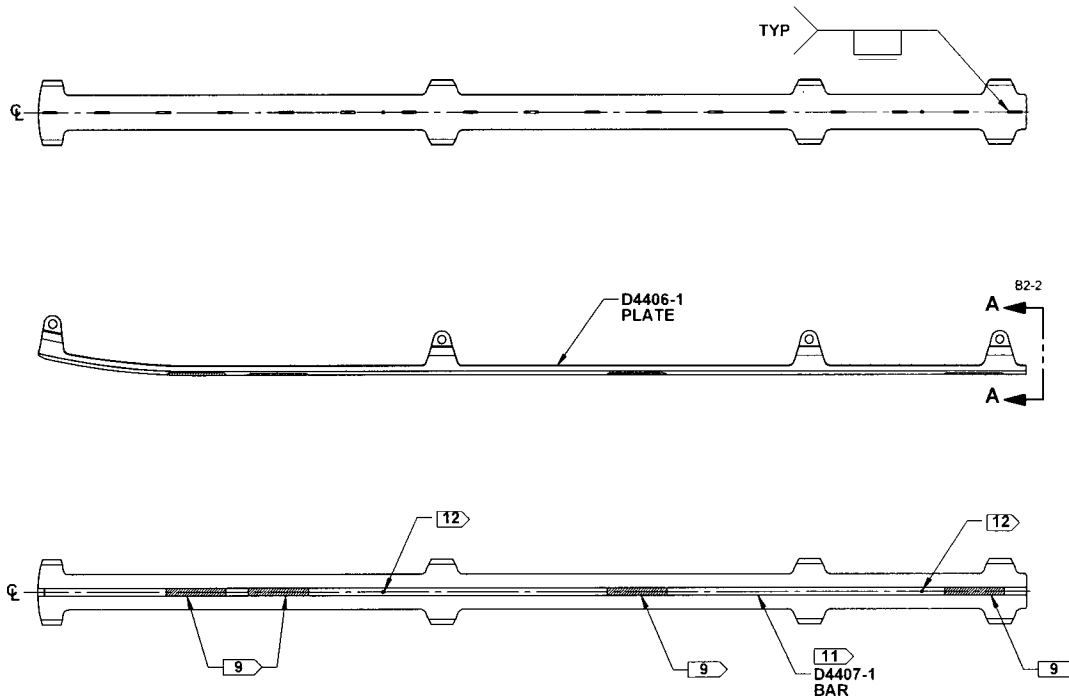
**D4406-043 AFT WEARPLATE ASSY**

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
1	X		D4406-041	FWD WEARPLATE ASSY
2		X	D4406-043	AFT WEARPLATE ASSY
3	1		D4406-1	PLATE
4		1	D4406-3	PLATE
5	1		D4407-1	BAR
6		1	D4407-3	BAR
7	A/R	A/R	2059B	HARDCOAT
8	A/R	A/R	4714	PLUS ONE ROCKGUARD (SEE NOTE 11, SHT 2 & 3)

## PRELIMINARY ISSUE

~~11~~ 11.06.21

PA3	D4406-1F/-3F OVERALL LENGTH CHANGE, D4406-3F HOLE LOCATION CHANGE (ZN B3-S) ; ADD NOTE TO TRANSFER DRAIN HOLES.		RF	11.06.21
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	RF			
CHECKED		DRAWING NO.	REV. PA3	
MFG. APPR.		<b>D4406</b>	SHEET 1 OF 6	
APPROVED		TITLE	SCALE	
DE APPR.		<b>WEARPLATE ASSY</b>	NTS	
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**D4406-041 FWD WEARPLATE ASSY**

C3-2 **SECTION A-A**  
SCALE 2X

**NOTES:**

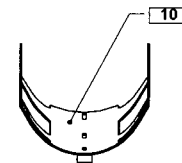
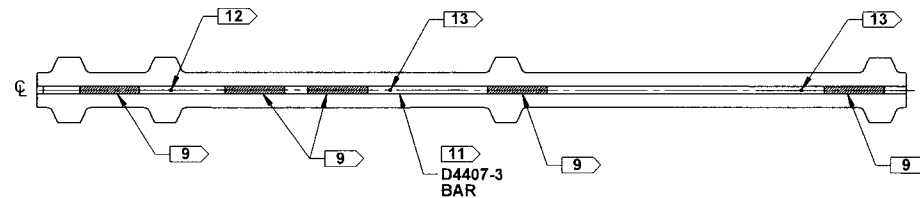
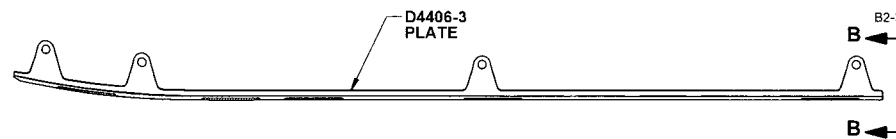
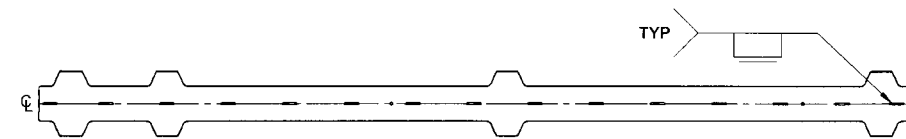
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 5.12 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D4407-1 BAR ON ALL 3 SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) FORM TO MATCH PROFILE OF D4406-1 AT TIME OF WELDING
- 12) TRANSFER  $\phi 0.188$  HOLES FROM D4406-1 TO D4407-1

**PRELIMINARY ISSUE**

11.06.21

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		<b>WEARPLATE ASSY</b>	NTS
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# **D4406-043 AFT WEARPLATE ASSY**

C3-3

SCALE 2X

## **NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 4.57 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D4407-3 BAR ON ALL 3 SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) FORM TO MATCH PROFILE OF D4406-3 AT TIME OF WELDING
- 12) FILL TOOLING HOLE WITH WELD ONE PLACE ONLY
- 13) TRANSFER  $\varnothing 0.188$  HOLES FROM D4406-3 TO D4407-3

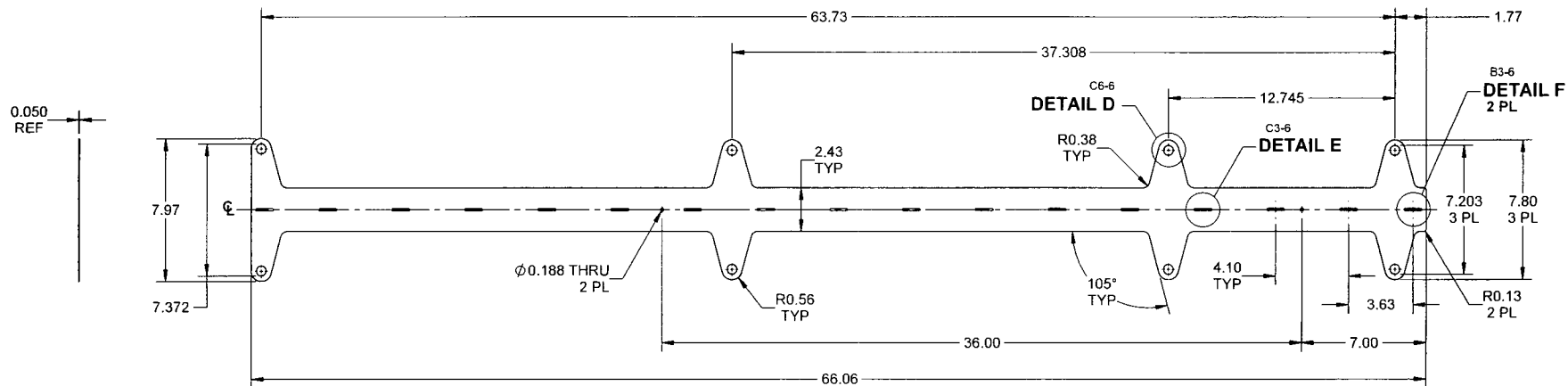
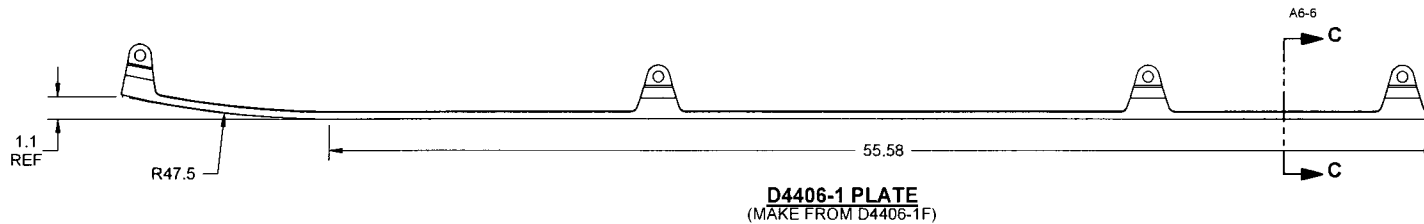
**PRELIMINARY ISSUE**

11.06.21

**SECTION B-B**

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 3 OF 6
APPROVED		TITLE	SCALE
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71625



- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 0.050 THICK (18 GAUGE)  
PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S18GA
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 2.33 lbs

**PRELIMINARY ISSUE**

11.06.21

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 4 OF 6
APPROVED		TITLE	SCALE
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A6-6  
C  
C

1.4  
REF

**D4406-3 PLATE**  
(MAKE FROM D4403-3F)

R55.8

54.160

47.695

C3-6  
**DETAIL E**

C6-6  
**DETAIL D**

71006

0.050  
REF

7.78  
2 PL  
7.214  
2 PL

7.214  
2 PL

24.995  
Ø0.188 THRU  
2 PL

4.10  
TYP

R0.13  
TYP

3.63

7.00

27.50

58.12

**D4406-3F FLAT PATTERN**

R0.38  
TYP

7.144

7.78

2.43  
TYP

7.567

8.17

B3-6  
2 PL

**DETAIL F**

6.583

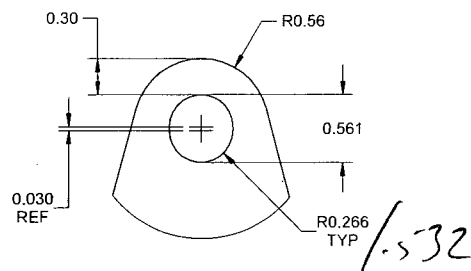
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 0.050 THICK (18 GAUGE)  
PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S18GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.33 lbs

**PRELIMINARY ISSUE**

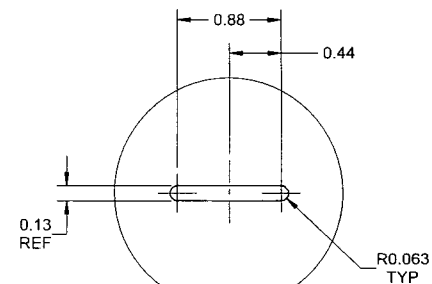
11.06.21

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 5 OF 6
APPROVED		TITLE	SCALE
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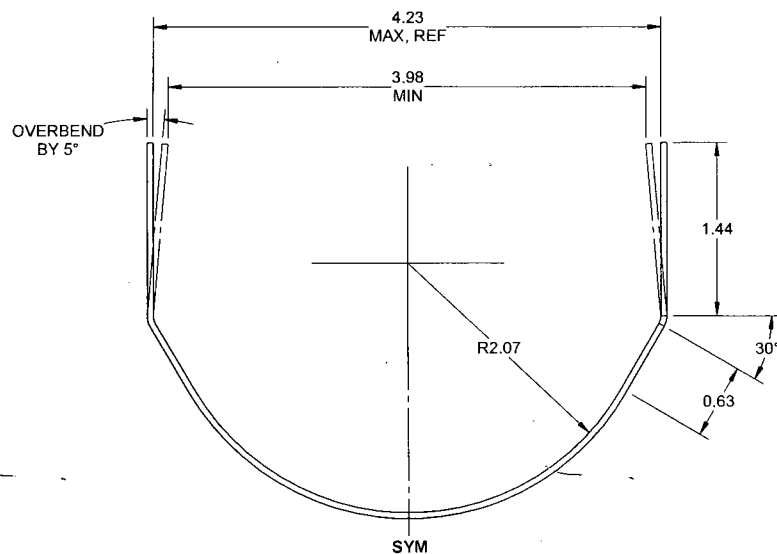
**DETAIL D**  
SLOT DETAIL TYP  
SCALE 6X

C3-4  
C4-5



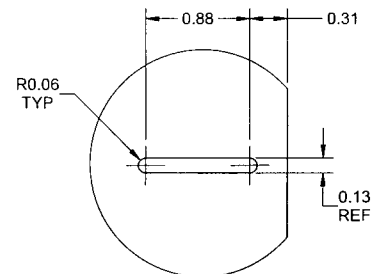
**DETAIL E**  
SLOT DETAIL TYP  
SCALE 6X

C2-4  
C4-5



**DETAIL C**  
DETAIL TYP  
SCALE 6X

D2-4  
D6-5



**DETAIL F**  
SLOT DETAIL TYP  
SCALE 6X

C1-4  
B1-5

**PRELIMINARY ISSUE**

11.06.21

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 6 OF 6
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21625

## Linda Lacelle

---

**From:** Roberto Fuentes <rfuentes@dartaero.com>  
**Sent:** July 6, 2011 4:18 PM  
**To:** David Shepherd  
**Cc:** Eric Charbonneau; David Duval; Kim Johnston; Linda Lacelle ; Mike Petsche; Jean Francois Sauve  
**Subject:** 205 wearplate updated drawing posted

Hi Linda,

I posted new update on 205 wearplate, for second prototype. It is required to do all the part again. My recommendation it is not to weld hardcoat until been check all the hole line-up with the skidtube. The wearplate dxf, pdf and SW file for the bar are in the preliminary folder D4406-PA3 and D4407-PA3. Please do not destroy first prototype for reference for the moment just identify as made from PA2.

Kim,  
Make sure D4406-1/-3/-041 and D4407-1/-3/-043 existing on database please.

Thanks,  
Roberto

DXF's  
JL